Frequently Asked Questions about current regulatory actions at the Radford Army Ammunition Plant (RAAP)

As a response to ongoing interest in the Radford Army Ammunition Plant (RAAP), DEQ has published a web page and this FAQ factsheet. DEQ receives numerous questions in response to proposed permit renewals and modifications. The agency responds to questions directly related to regulated activities and permit actions. Questions and information not related to current regulatory actions will be developed and published as agency resources allow or as pending regulatory actions warrant.

What is the current regulatory action being considered at RAAP?

On March 22, 2013, the Radford Army Ammunition Plant (RAAP) proposed two changes to its hazardous waste permit for the open burning ground (OBG) under a Class 2 modification. This permit was issued in 2005 to allow burning of hazardous waste at an area designated as HWMU13. Under the modification, the plant proposes to add one groundwater monitoring well down gradient to the OBG and discontinue sampling of one well located up gradient to the OBG. In a second letter to DEQ dated April 19, 2013, the facility decided to withdraw its request for an increase in the chromium feed rate associated with the 500-pound skid burn. The proposed modifications relating to the groundwater monitoring have been approved. For more information, see June 18, 2013, letter from DEQ .

What are the regulations that govern the treatment of waste propellant at the RAAP open burning ground?

The Radford Army Ammunition Plant (RAAP) Hazardous Waste Management Unit (HWMU) 13 or open burning ground is regulated under (40 CFR 264 Subpart X as incorporated by 9 VAC 20-60-264) that limits the type and amount of hazardous waste propellant that is burned at the site. These regulations require that units are constructed, operated and maintained in a way that will prevent unsafe releases of pollutants into the groundwater, surface water, wetlands, soil or air.

How is the environment protected from waste treated at the open burning ground?

DEQ issued a permit in 2005 that protects human health and the environment and meets all requirements under the state and federal laws and regulations that govern its operation. The OBG permit specifies that only reactive and certain ignitable types of waste propellants may be burned at this site , and limits pollutant concentrations in the waste propellant for each burn event. The permit specifies how RAAP must measure and calculate the concentrations of pollutants in the waste propellants that may be burned at any time. These restrictions are based on the results of human health and risk assessments.

How is groundwater protected from pollutants at the open burning ground?

As part of its permit, the RAAP maintains a groundwater compliance network of wells around the open burning ground (OBG) and monitors the groundwater in the uppermost aquifer. The network currently consists of two up gradient wells and five down gradient wells. The facility proposed to add one down gradient well and discontinue sampling of one up gradient well (these changes to the compliance network constituted the Class 2 permit modification that was approved by DEQ on June 18, 2013). Groundwater samples taken from these wells twice a year are analyzed and compared (or screened) against Groundwater Protection Standards (GPS) to identify the presence of hazardous waste derived constituents, to verify that the pollution plume is not expanding down gradient, laterally or vertically) and to verify that there are no unacceptable releases into down gradient areas, such as the New River.

How does the public know that the Radford plant is conforming to the regulations that govern burning operations?

To ensure compliance with state and federal regulations, DEQ carefully reviews facility records and formally inspects OBG operations at least once per year.

The Environmental Protection Agency (EPA) requires DEQ to inspect all permitted units and hazardous waste management activities. An inspection often occurs after burning pans have been loaded with waste, but before burning, allowing DEQ to ensure that waste propellants conform to the permitted requirements. DEQ periodically inspects pans during or after a burn under safe conditions.

The facility is required to keep operational records detailing the composition of the materials that are burned. DEQ reviews the records to ensure compliance with the allowable amounts. The calculations for each pollutant and each burn event are reviewed to ensure that the pollutants are within the permitted concentration limits.

What is the standard for perchlorate in groundwater at the open burning ground?

As of September 2011 and following a Class 3 modification to the OBG hazardous waste treatment permit, perchlorate results are screened against the groundwater protection standard (GPS) of 26 micrograms per liter (or parts per billion, ppb). This standard is based on the published EPA risk-based screening level. By letter dated June 14, 2012, DEQ advised RAAP "to also screen the data against the EPA interim health advisory goal of 15 ppb recommended for drinking water." Since the GPS for perchlorate was established (26 ppb), the facility has exceeded the standard twice in one monitoring well (13MW4). The approved permit modification will require RAAP to screen perchlorate against the more stringent risk-based screening level of 15 ppb.

What happens when pollution at a facility exceeds groundwater standards?

When a facility exceeds a groundwater protection standard, the facility enters into a corrective action program that requires the implementation of a selected remedy and monitoring of the nature and extent of the contamination. RAAP has already entered the corrective action program and in accordance with its OBG permit, is implementing a "monitored natural attenuation" program. Monitored natural attenuation -- which means the contaminant is allowed to break down and decrease naturally – is allowable when contaminant concentrations are low, appropriate subsurface conditions exist, the contaminant concentrations are trending downward, and the expected period of time for contaminant concentrations to fall below the groundwater protection standard is within a reasonable timeframe. The corrective action program at the open burning ground must demonstrate compliance with the groundwater protection standard for three consecutive years before termination of the program can be requested. Any existing or new health advisory or maximum contaminant levels will be considered in future decision-making regarding the groundwater program at the open burning ground.

What water quality standard is used for protecting groundwater?

The open burning ground is not a source of drinking water, so a groundwater protection standard is established. Groundwater protection standards are based on EPA-approved risk-based screening levels for tap water and maximum contaminant levels when available. These standards are intended to ensure that contaminated groundwater does not present a risk to human health. A maximum contaminant level is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the maximum contaminant level goals as feasible using the best available treatment technology.

Can the public make comments about the proposed modification to the hazardous waste permit?

The public was able to make comments on the proposed modification of the permit under 40 CFR 270.42 (a permit modification at the request of the permittee) during a 60-day comment period that ended May 23, 2013. These procedures were promulgated by EPA in 1988 to better accommodate the different types of hazardous waste permit modifications and provide for public notification and public participation opportunities corresponding to the type of change being requested. DEQ's response to written comments received during the public comment period at the time a determination of the disposition of the Class 2 modification is available for review.

What kind of comments can be made by the public?

Comments directly related to the action(s) being proposed must be considered by DEQ. Specific comments are more useful, but all comments related to the proposed regulatory action are considered.